Winter QUARTERLY MEETING – February 26th, 2025

Chesapeake Bay Program

Submerged Aquatic Vegetation Workgroup Updates

Brooke Landry
Maryland DNR and
Chair, SAV Workgroup

Chesapeake Bay Program
Science. Restoration. Partnership.

1750 Forest Drive, Suite 130, Annapolis, MD 21401

SAV Workgroup Winter Meeting 2025 Agenda
2.26.25
1:00 pm – 5:00 pm
In person at Chesapeake Bay Program and Online
Click here to join the Microsoft Teams meeting
Meeting ID: 240 998 480 360
Passcode: UfsoyS

1:00	Welcome and Introductions
1:15	SAV Workgroup Updates
1:45	SAV Mitigation and Monitoring Workshop Recap
2:15	**Break**
2:30	SAV Outcome Assessment_2-Pager Review
3:15	SAV Outcome Assessment_Updated Goal Discussion
4:00	**Adjourn**

Through the Chesapeake Bay Watershed Agreement*, the Chesapeake Bay Program has committed to…*

Goal: ***Vital Habitats***

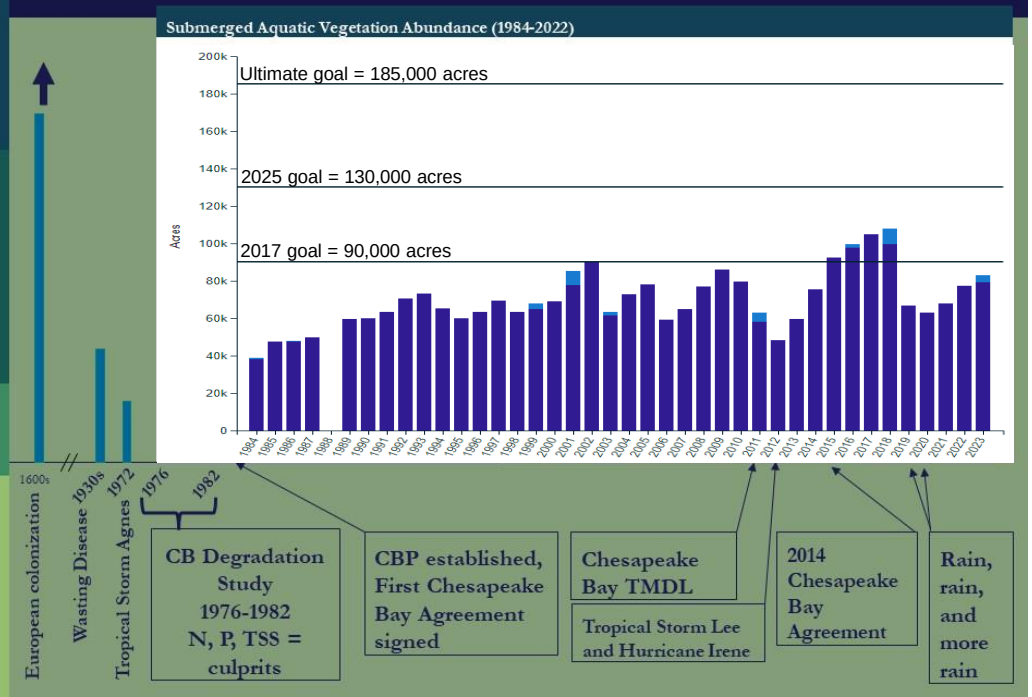
Outcome:

Sustain and increase the habitat benefits of SAV in the Chesapeake Bay. Achieve and sustain the ultimate outcome of 185,000 acres of SAV Bay-wide necessary for a restored Bay. Progress toward this ultimate outcome will be measured against a target of 90,000 acres by 2017 and 130,000 acres by 2025.

2023 SAV #s

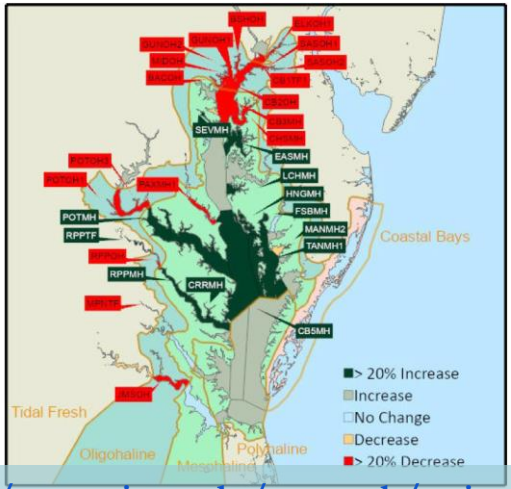
What is our Progress?

Progress towards the Bay-wide SAV goal



FINAL SAV #s were up in 2023:

- 79,716 acres were mapped in 2023.
- 3,703 additional acres of SAV are estimated for a portion of the Potomac that was not mapped.
- 83,419 total acres of SAV estimated for 2023(+8%).
- This is 61% of the 2025 target and 45% of the ultimate 185,000-acre outcome.



https://www.vims.edu/research/units/programs/sav/access/maps/index.php

https://www.chesapeakeprogress.com/abundant-life/sav

Shallow Water Habitat Sentinel Site Program Development ; Contracted to Green Fin Studios!

GIT-Funded Project Schedule:

Proposed EPA GIT Path Forward and Draft Schedule:

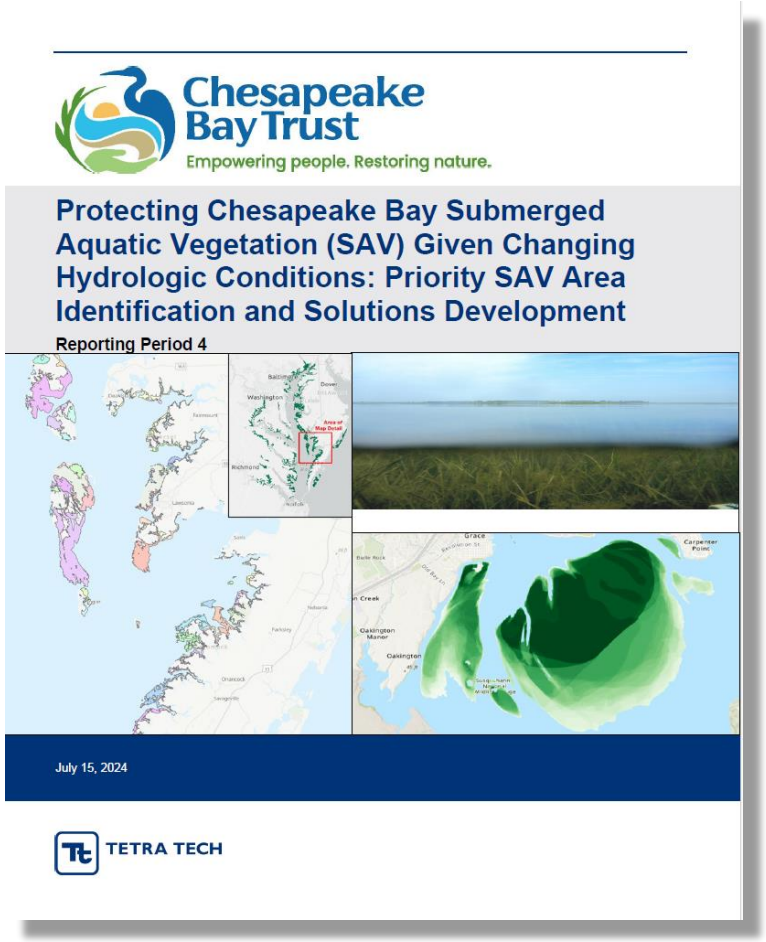
- Mid-August to Mid-September 2024: Trust work with GIT Leads and coordinate with QA coordinator; Trust to receive EPA Award for Year 4 of GIT projects.
- Mid-September 2024: Release RFP with seven Scopes of Work
- Mid-October 2024: close RFP (RFP open for 30 days).
- November 2024: Review applications and make recommendations for awards
- December 2024: Write and send Contract Awards
- January 2025: Contractors begin work!

2022 GIT-Funded Project Lead: SAV Workgroup

Protecting Chesapeake Bay SAV Given Changing Hydrologic Conditions: Priority SAV Area Identification and Solutions Development

Project Objective

This project will identify high-priority SAV areas within the Chesapeake Bay Watershed and determine which BMPs could be most effective in protecting those areas from loss during high-flow events/years using GIS spatial analysis/modeling and existing SAV, flow, land-use, and water quality data. With this information, steps can be taken to target high-priority SAV areas for implementation of BMPs and land management policies that will protect or restore those priority SAV habitats.



UPDATE: Tetra Tech presenting today!

2022 GIT-Funded Project Lead: SAV Workgroup

Protecting Chesapeake Bay SAV Given Changing Hydrologic Conditions: Priority SAV Area Identification and Solutions Development

COMPLETE

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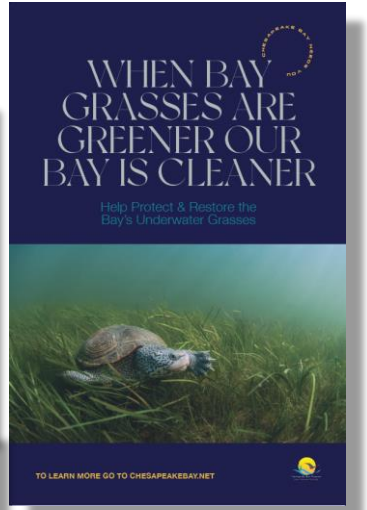
UPDATE: Tetra Tech presenting today!

2022 GIT-Funded Project
Lead: Comms Workgroup

Advancing Social Marketing Through Two Pilot Programs – meeting schedule to review updates soon.

Proposed Project Outcomes

This project is developing pilot programs for existing community-based social marketing (CBSM) campaigns that have been developed over the past few years, SAV being one.



Contracted to: OpinionWorks

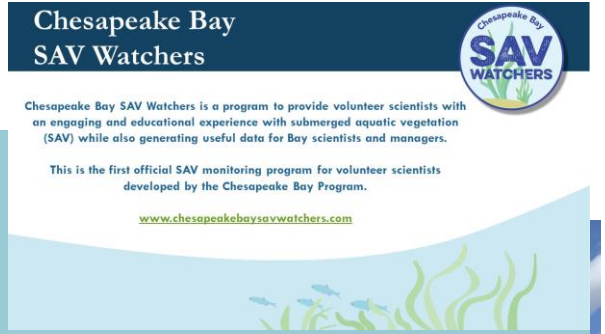
No new updates since OW presented at last meeting…

Chesapeake Bay SAV Watchers Program

SAV Watcher Trainer Certification Events in 2025:

Annapolis Maritime Musuem
Marshy Point Nature Center
St. Mary's Watershed Association/SMCM
Virginia Commonwealth University/The Nature Center
VIMS, Others?

ShoreRivers
Havre de Grace Maritime Museum and Environmental Center
James River Association
Severn River Association
America's Oldest River Group
Magothy River Association
Saving our river for future generations
The Gunston School 1911 Centreville, MD
Baltimore County Public Schools
Marshy Point Nature Center
Arundel Rivers Federation
Chesapeake Bay National Estuarine Research Reserve Maryland
Using Sound Science...Finding Solutions...Promoting Wise Decisions
Accokeek Foundation at Piscataway Park
The Nature Conservancy



"Train the trainer" certification events offered each summer

www.chesapeakebaysavwatchers.com OR https://www.chesapeakebay.net/what/programs/monitoring/sav-monitoring-program

SAV Watchers Newsletter

Subscribe to our Newsletter here:
https://forms.gle/yYwkDPShvBjFCiby5

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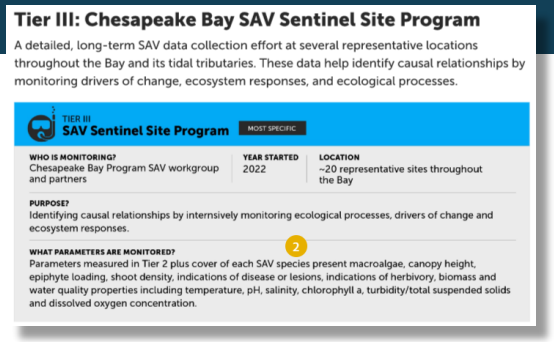
SAV Sentinel Site Program – continuing in 2025!



Tier III: Chesapeake Bay SAV Sentinel Site Program

A detailed, long-term SAV data collection effort at several representative locations throughout the Bay and its tidal tributaries. These data help identify causal relationships by monitoring drivers of change, ecosystem responses, and ecological processes.

TIER III
SAV Sentinel Site Program MOST SPECIFIC

WHO IS MONITORING?
Chesapeake Bay Program SAV workgroup and partners

YEAR STARTED
2022

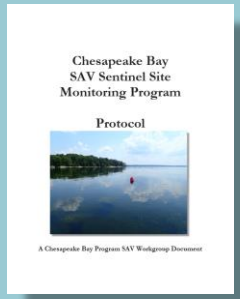
LOCATION
~20 representative sites throughout the Bay

PURPOSE?
Identifying causal relationships by internsively monitoring ecological processes, drivers of change and ecosystem responses.

WHAT PARAMETERS ARE MONITORED?
Parameters measured in Tier 2 plus cover of each SAV species present macroalgae, canopy height, epiphyte loading, shoot density, indications of disease or lesions, indications of herbivory, biomass and water quality properties including temperature, pH, salinity, chlorophyll a, turbidity/total suspended solids and dissolved oxygen concentration.

Sites that will be installed and monitored in 2025:

- Severn River
- Susquehanna Flats
- Smith Island
- Marshy Creek
- Dundee Creek
- St. Mary's
- VIMS sites
- CB- NERR sites



Chesapeake Bay
SAV Sentinel Site
Monitoring Program

Protocol

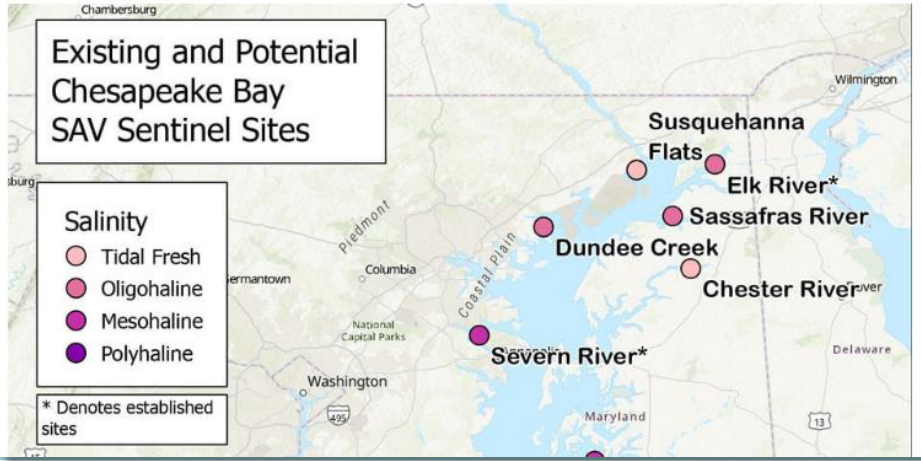
A Chesapeake Bay Program SAV Workgroup Document

Tier III: SAV Sentinel Site Program

The SAV Sentinel Site Program is a monitoring effort conducted by Bay scientists

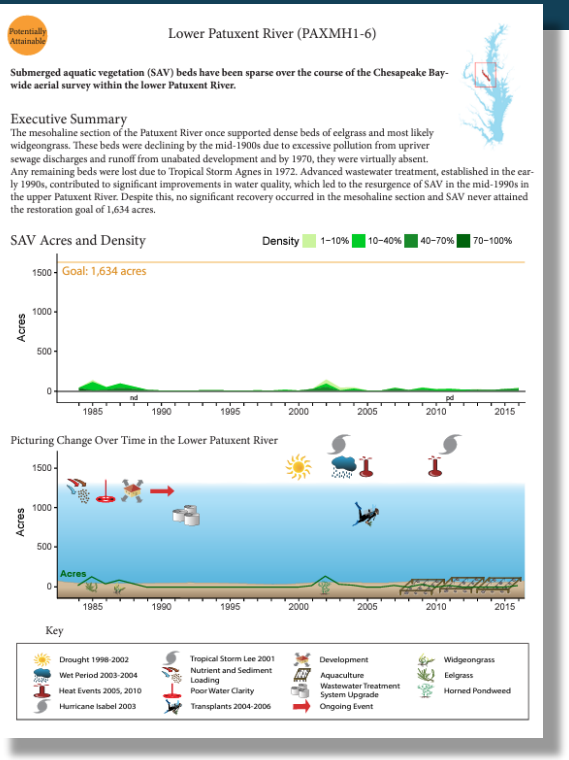
What is the Chesapeake Bay SAV Sentinel Site Program?

The Chesapeake Bay SAV Sentinel Site Program forms the third tier of the Chesapeake Bay SAV Monitoring effort. SAV sentinel sites are located in each of the Bay's four salinity zones (tidal fresh, oligohaline, mesohaline and polyhaline) and are monitored using a standardized, in-depth data collection protocol. These sentinel sites are a combination of existing, long-term sites and new sites where Bay scientists monitor changes in SAV habitat characteristics and resilience indicators. This program is coordinated by the Bay Program's SAV Workgroup. If you are interested in adopting and managing an SAV Sentinel Site, contact the program coordinator at brooke.landry@maryland.gov.



https://www.chesapeakebay.net/what/programs/monitoring/sav-monitoring-program

SAV Data Dashboard is getting updated!



Potentially Attainable

Lower Patuxent River (PAXMH1-6)

Submerged aquatic vegetation (SAV) beds have been sparse over the course of the Chesapeake Bay-wide aerial survey within the lower Patuxent River.

Executive Summary

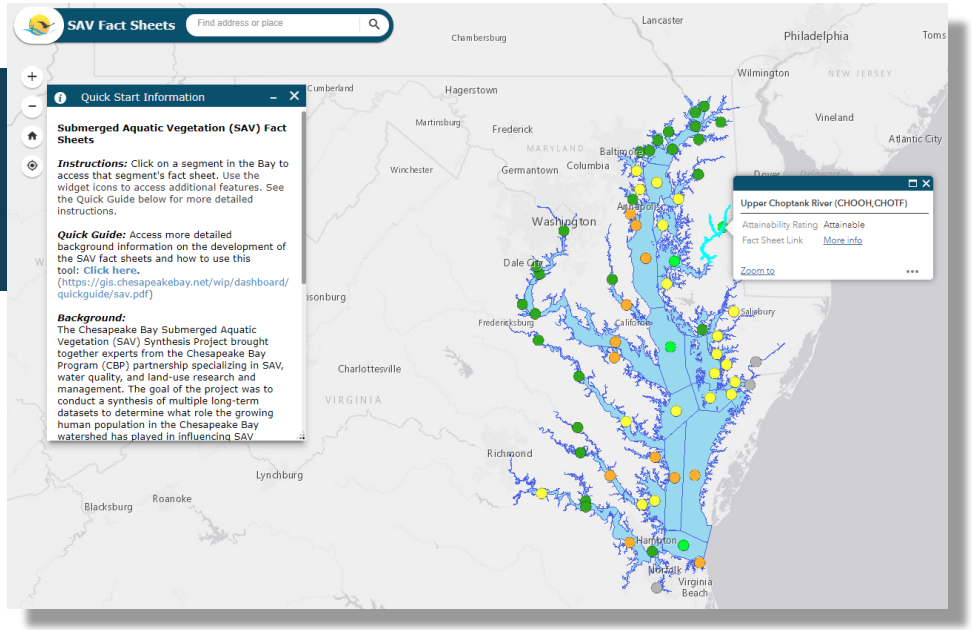
The mesohaline section of the Patuxent River once supported dense beds of eelgrass and most likely widgeongrass. These beds were declining by the mid-1900s due to excessive pollution from upriver sewage discharges and runoff from unabated development and by 1970, they were virtually absent. Any remaining beds were lost due to Tropical Storm Agnes in 1972. Advanced wastewater treatment, established in the early 1990s, contributed to significant improvements in water quality, which led to the resurgence of SAV in the mid-1990s in the upper Patuxent River. Despite this, no significant recovery occurred in the mesohaline section and SAV never attained the restoration goal of 1,634 acres.

SAV Acres and Density

Density 1–10% 10–40% 40–70% 70–100%

Picturing Change Over Time in the Lower Patuxent River

Key



Data Dashboard: https://gis.chesapeakebay.net/wdd

SAV Outcome Assessment Special Session

SUBMERGED AQUATIC VEGETATION
VITAL HABITAT GIT/SAV WORKGROUP

2014 WATERSHED AGREEMENT: GOAL & OUTCOME LANGUAGE

SAV OUTCOME: Sustain and increase the habitat benefits of SAV (underwater grasses) in the Chesapeake Bay. Achieve and sustain the ultimate outcome of 185,000 acres of SAV Bay-wide necessary for a restored Bay. Progress toward this ultimate outcome will be measured against a target of 90,000 acres by 2017 and 130,000 acres by 2025.

VITAL HABITATS GOAL: Restore, enhance and protect a network of land and water habitats to support fish and wildlife, and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed.

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD: **UPDATE**

Recommendation: The SAV Outcome should be **updated** to align with jurisdictional SAV and water clarity standards. Updating the SAV Outcome to align with water clarity standards will result in an SAV acreage target higher than in the current outcome but will result in a more accurate reflection of potential SAV extent in each Bay segment.

SMART (Specific, Measurable, Achievable, Realistic, Time-bound: The current SAV Outcome is SMART because the SAV acreage language is *measurable* and interim goals are *time-bound*. An updated SAV Outcome should include an aspiration ultimate outcome as well as incremental, time-bound targets that are ecologically feasible within the timeframe of the Agreement. The SAV Workgroup will provide draft recommendations on interim timeframes and *measurable* acreage goals for your consideration. Interim goals allow for *time-bound* success criteria while maintaining an aspirational ultimate goal.

Challenges and Opportunities: There are numerous challenges influencing the success of SAV recovery and restoration throughout the Bay. Extensive efforts are being made to address those factors and to identify what additional opportunities and efforts are necessary to reach the ultimate SAV restoration goal. These include **Habitat Conditions and Availability, Protection of Existing and Recovering SAV, SAV Restoration Potential and Activity, SAV Research and Monitoring, and Public Perception, Knowledge, and Engagement.** These are further described as Factors in the SAV Management Strategy.

SAV Outcome Relation to Chesapeake Bay Agreement Mission, Vision, and Pillars: SAV beds are a cornerstone of the Bay's ecosystem, providing essential habitat, improving water quality, and enhancing the Bay's resilience to climate change. The SAV Outcome aligns with the Bay Program's overarching goal of achieving an environmentally and economically sustainable Chesapeake Bay watershed by addressing each of the five guiding pillars of restoration – **Abundant Life, Clean Water, Climate Change, Conserved Lands, and Engaged Communities.** SAV beds support the **Fish Habitat Outcome** by providing nursery areas, shelter, and foraging grounds for key fish species. They also enhance the **Blue Crab Abundance**

SAV Mitigation and Monitoring Workshop

Workshop Purpose:

Convene the SAV workgroup and regulatory partners to identify in-kind SAV mitigation and monitoring requirements, success criteria, and performance standards for SAV mitigation projects.

2025 Meeting Schedule

Mark Your Calendars*

Winter Meeting: February 26th, 1-4pm

Spring Meeting: May 7th, 12-5pm

Summer Meeting: August 20th , 12-5pm

Fall Meeting: November 12th, 9-5pm

Questions?

Presentation template by SlidesCarnival